Water/Energy Climate Strategies

9-25-07

SUGGESTED WATER-ENERGY CLIMATE ACTION STRATEGIES						DRAFT 9/26/2007
Agency	**Strategy Title**	**Description**	**Status**	**Completion Date**	**Tons of Carbon**	**Costs**
SWQCB	Monitor Groundwater Supplies	The Water Board Division of Water Rights should prioritize programs and activities to monitor groundwater levels and withdrawals within groundwater basins where recharge and storage are proposed.				
SWQCB	Increase Use of Recycled Water	The Water Board Division of Water Quality should review regulatory constraints, infrastructure requirements, water quality standards and beneficial uses to increase the use of recycled water.				
SWQCB	Delineate Groundwater Basins	The Water Board Division of Water Quality should map groundwater basins and identify those suitable for storage and those requiring remediation.				
SWQCB	Remediate Contaminated Groundwater Basins	The Water Board Division of Water Quality should prioritize programs and activities to remediate contaminated groundwater basins.				
SWQCB	Low Energy Wastwater Treatment Methods	The Water Board Regulatory Program should evaluate alternative low energy treatment methods, such as Advanced Integrated Pond Systems (AIPS) for land discharge.				

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DWR	Water Use Efficiency	DWR will adopt criteria for its water use efficiency projects and programs that will consider energy use and efficiency, including the application of Urban Best Management Practices (BMPs) and Agricultural Efficient Water Management Practices. DWR will collaborate with the California Energy Commission, California Public Utilities Commission, and the State Water Resources Control Board in implementing this initiative. If all Urban BMPs are fully implemented, this strategy could result in GHG emissions reduction of 0.6 MMTCO2E by 2020.				
DWR	Statewide Water Planning	DWR will incorporate the impacts of climate change on California's water systems into the *California Water Plan Update 2009,* as well as screen water management strategies for energy and GHG emissions impacts. DWR will work directly with the California Energy Commission on this initiative. As a strategic planning process, this strategy will help better inform local and regional planning efforts and other strategies (e.g. Proposal Solicitation Processes) in reducing GHG emissions.				
DWR	Proposal Solicitation Processes	DWR will include consideration of GHG emissions as a criterion in future water management Proposal Solicitation Processes funded through water bonds. The GHG emissions reductions from this strategy are still to be determined.				
DWR	Hydroelectricity	DWR will investigate the impacts of climate change to California's hydroelectric systems, as well as evaluate the GHG emissions from hydropower operations. The GHG emissions reductions from this strategy are still to be determined.				

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DWR	CCAR	DWR has joined the California Climate Action Registry. This strategy provides a data baseline to calculate the GHG emissions reductions of other strategies.				
DWR	Renewable Energy for SWP	DWR will re-evaluate State Water Project (SWP) energy resources with a goal of including feasible and cost-effective renewable energy in the SWP's power portfolio. The GHG emissions reductions from this strategy are still to be determined.				
DWR	Clearn Energy for SWP	In renewing energy supply contracts for the SWP, it is DWR's goal not to renew contracts supplied by conventional coal power generation, including the Reid Gardner power plant near Las Vegas, Nevada. Specifically, upon expiration of its contract in 2013, DWR will not extend its ownership interest in the Reid Gardner plant. The GHG emissions reductions from this action are still to be determined.				
DWR	Carbon Sequestration	With the California Energy Commission and the US Geological Survey, DWR is exploring opportunities to implement carbon sequestration projects on property it owns statewide, in particular, in the Sacramento-San Joaquin Delta. The GHG emissions reductions from this strategy are still to be determined.				
CEC/ CPUC	Renewable Energy Production from Water	Non-regulatory voluntary program to develop all cost-effective, environmentally preferred in-conduit, biogas and other renewable options for water and wastewater systems.				

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DWR	Lowering Energy Intensity of Water Systems	Identify and implement all cost-effective water efficiency opportunities to decrease the energy intensity of the State's water systems.				
DWR/CEC /CPUC	Increase Energy Efficiency of Water End Uses	Identify and implement efficiency improvements for hot and cold water uses in homes and businesses, water saving appliances and fixtures, devices that use and move water. Near-term opportunities should be identified for inclusion in the 2006-2008 IOU energy efficiency portfolios.				
CEC	PIER Roadmap for Water-Energy	Evaluate and conduct research to: examine opportunities to shift loads off peak; integrate intermittent renewable generation from water systems; and better understand the interaction of water and energy within the state and identify new and innovative technologies and measures for mutally achieving energy and water efficiency savings.				